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ABSTRACT

Utilizing U.S. census data and vital statistics (births and deaths adjusted to residence as provided by the Alaska Department of Health and Social Services), this statistical report presents a comparative analysis of Alaska Native population trends. Specifically, the following are presented via tabular and narrative analysis: (1) general population trends in Alaska from 1740-1960 (Native and non-Native); (2) significant Native population movement within regions (Southeast, Southcentral, Southwest, Interior, and Northwest Alaska) for 1950, 1960, and 1970 and by average annual rate of change between 1950-60 and 1960-70; (3) comparison of 1950 census of Native population with 1960 and a vital statistics projection based upon the 1950 and 1960 censuses; (4) comparison of 1960 census of Native population and other estimates; (5) estimated total Native population and vital statistics (1950-70) for each of Alaska's five regions; and (6) Native population projections by regions for 1970-85. Emphasizing the discrepancy between past official census counts and major demographic changes such as migration, this report indicates: a Native population decline in all but the Southcentral region, though an overall population growth; differing growth rates in the different regions; greater geographic mobility; increased Native urbanization; and a high probability of error and undercounting in the official reports. (JC)

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# Alaska Native Population Trends and Vital Statistics, 1950-1985

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Victor Fischer, Director of the Institute

James D. Babb, Jr., Editor

# ALASKA NATIVE POPULATION TRENDS AND VITAL STATISTICS, 1950-1985

by
George W. Rogers

The original version of this analysis of Alaska Native population was made in 1964 at the request of the then area director of the Bureau of Indian Affairs, Robert L. Bennett, for guides in discussing bureau goals in relation to the new Economic Opportunity Act. The purposes were to provide a basis for estimating current (1964) Native population by areas to identify and measure the underlying dynamics of population change, and to make projections by areas in the year 2000 that could be related to projections of anticipated new employment and relocation requirements. The resulting analysis was updated and appeared in revised form in December 1967 as a part of a broader analysis of economic and social guidelines for the Washington-Alaska Regional Medical Program.

The present version was produced not in response to such specific requests, but because of the need for a new look at Alaska's Native population and its future.

## INTRODUCTION

A comparison of the 1970 census with past census reports indicates that Alaska's Native population continued to grow in numbers. As before, growth patterns differed between regions and there was evidence that trends toward greater geographic mobility were increasing. Most significant in 1970 was evidence of increasing urbanization of the Native population.

Even before publication of preliminary 1970 census data, annual birth records by race and area indicated that the underlying forces of net natural increase (excess of births over deaths) and net migration, which had operated in a fairly consistent manner for about two decades prior to the mid-1960's, were rapidly changing. Thus, projections made on the basis of past analysis of those forces are no longer valid and should be replaced by projections made on a new set of assumptions reflecting recent changes. In addition, comparison of preliminary 1970 census data with cumulative natural increase of the Native population, as reflected in vital records since the 1960 census, suggests that the use of 1970 census data must be carefully qualified.

## PRESENT AND RECENT PAST – LONG AND SHORT-TERM CHANGE

Table 1 summarizes the long-run trends in Native and non-Native populations from the time of the first European contacts through the 1970 census. Between 1960 and 1970, the long-run upward trend in the number of Alaska Natives (which was first recorded in the 1929-1939 census reports) continued, but not at the same high rate recorded between 1950 and 1960.

The 1970 census data show that between 1960 and 1970 the average annual growth rate for Natives declined in four of Alaska's five regions — Northwest, Interior, Southwest, and Southeast (where it turned into an annual rate of decline) — and increased substantially in one, Southcentral (see Table 2).[1] The rate of change in the Northwest Region declined from 2.0 per cent between 1950 and 1960 to 1.3 per cent between 1960 and 1970, in the

[1] The regions used are the same as those in the original and subsequent versions of this analysis (G.W. Rogers "Preliminary Comments on Alaska Native Population and Employment Prospects, 1960-2000," presented at Bureau of Indian Affairs Employment Assistance Conference, December 2-4, 1964, Seattle, Washington, and Alaska Field Representatives Conference, December 7-11, 1964, Juneau, Alaska, and G.W. Rogers, *Alaska Regional Population and Employment, Economic and Social Guidelines for the Regional Medical Program in Alaska*, SEG Report 15, December, 1967, pp. 49-60), and are those first defined and used in G.W. Rogers and R.A. Cooley, *Alaska's Population and Economy*, Institute of Business, Economic and Government Research, University of Alaska, Economic Series, Publication No. 1, Vols. 1 & 2, 1963.

These regions differ from those used by the Alaska Department of Labor in their recent *Alaska Manpower Outlook for the 1970's* series only in that Aleutian Islands District is in the Southwest rather than the Southcentral region. In order to maintain continuity with earlier studies and also accommodate the Department of Labor studies, this analysis is presented on the basis of both classifications.

**TABLE 1.**

**General Population Trends in Alaska, 1740-1960**

| Year or Date | Total | | Native | | Non-Native | |
|---|---|---|---|---|---|---|
| | No. of Persons | Trend[a] | No. of Persons | Trend[a] | No. of Persons | Trend[a] |
| Circa 1740-80 | 74,000 | 24.5 | 74,000 | 100.0 | --- | --- |
| 1839 | 39,813 | 13.2 | 39,107 | 52.8 | 706 | 0.3 |
| 1880 | 33,426 | 11.1 | 32,996 | 44.6 | 430 | 0.2 |
| 1890 | 32,052 | 10.6 | 25,354 | 34.3 | 6,698 | 2.7 |
| June 1900 | 63,592 | 21.0 | 29,536 | 39.9 | 34,056 | 13.6 |
| Dec. 31, 1909 | 64,356 | 21.3 | 25,331 | 34.2 | 39,025 | 15.6 |
| Jan. 1, 1920 | 55,036 | 18.2 | 26,558 | 36.0 | 28,478 | 11.4 |
| Oct. 1, 1929 | 59,278 | 19.6 | 29,983 | 40.5 | 29,295 | 11.7 |
| Oct. 1, 1939 | 72,524 | 24.0 | 32,458 | 43.8 | 40,066 | 16.0 |
| Apr. 1, 1950 | 128,643 | 42.6 | 33,863 | 45.8 | 94,780 | 37.8 |
| Apr. 1, 1960 | 226,167 | 74.8 | 43,081 | 58.2 | 183,086 | 73.1 |
| Apr. 1, 1970 | 302,173 | 100.0 | 51,712[b] | 69.9 | 250,461 | 100.0 |

[a]Number of persons expressed as percentage of maximum for each series.

[b]Partly estimated; Eskimo and Aleut included with "other races" in 1970 census reports.

SOURCES: 1740-80 based on estimates in J.W. Swanton, *The Indian Tribes of North America* (1952) and W.H. Oswalt, *Alaskan Eskimos* (1967). 1839 based on estimates by Venianinov and others in "Resources of Alaska," *10th Census of the United States*, 1880, Vol. VIII, pp. 36-38. Other data from U.S. Bureau of the Census reports 1880 through 1970. April 1, 1970 total population from PC(1)-A3, issued May 1971. Native and non-Native for 1970 as tabulated from census tapes by Bureau of Indian Affairs and Alaska Department of Labor, May 4, 1971.

Interior Region from 2.3 per cent to 1.8 per cent, in the Southwest Region from 2.8 per cent to 1.9 per cent, and in the Southeast Region from 1.0 per cent to minus 0.9 per cent. In the Southcentral Region, the rate of change increased from 3.8 per cent between 1950 and 1960 to 5.8 per cent between 1960 and 1970. Most of this latter growth occurred within the Anchorage District, where the number of Natives counted went from 659 in 1950 to 2,107 in 1960 and to 5,286 in 1970.

The 1960-1970 decline in the Southeast Region was caused primarily by reductions in the Bureau of Indian Affairs (BIA) education and U.S. Public Health Service programs at the Mt. Edgecumbe facility in the Sitka District. Native population there rose from 718 persons in 1950 to 1,432 in 1960 and then fell to 464 in 1970. If the Sitka District is abstracted from the Southeast Region, Native population there appeared to have maintained a constant average annual growth of 0.9 per cent for the two decades.

The remaining three regions experiencing declines in their annual growth rates had quite different patterns of concentration within their principal growth centers. For the two

TABLE 2.

Significant Native Population Movement
Within Regions—1950-1970

| | April 1, 1950 | April 1, 1960 | April 1, 1970 | April 1, 1950-60 | April 1, 1960-70 |
|---|---|---|---|---|---|
| | (number of persons) | | | (average annual rate of change) | |
| Southeast Region | 7,929 | 9,242 | 8,354 | 1.0 | (0.9) |
| Sitka District[a] | 2,055 | 2,837 | 1,363 | 3.2 | (7.9) |
| Balance | 5,874 | 6,405 | 6,991 | 0.9 | 0.9 |
| Southcentral Region | 3,788 | 5,514 | 9,723 | 3.8 | 5.8 |
| Anchorage District[b] | 659 | 2,107 | 5,286 | 11.2 | 9.6 |
| Balance | 3,129 | 3,407 | 4,437 | 0.8 | 2.6 |
| Southwest Region | 10,838 | 14,314 | 17,364 | 2.8 | 1.9 |
| Bethel City | 467 | 977 | 1,870 | 7.7 | 6.7 |
| Balance | 10,371 | 13,337 | 15,494 | 2.5 | 1.5 |
| Interior Region | 3,666 | 4,638 | 5,615 | 2.3 | 1.8 |
| Fairbanks District | 1,299 | 1,453 | 1,818 | 1.1 | 1.9 |
| Balance | 2,367 | 3,185 | 3,797 | 2.9 | 1.7 |
| Northwest Region | 7,663 | 9,373 | 10,656 | 2.0 | 1.3 |
| Nome City | 929 | 1,608 | 1,522 | 5.6 | (0.5) |
| Barrow City | 924 | 1,215 | 1,904 | 2.7 | 4.5 |
| Balance | 5,810 | 6,550 | 7,230 | 1.2 | 1.0 |

[a]Mt. Edgecombe native population: 1950, 718; 1960, 1,432; and 1970, 464.
[b]1970 preliminary racial classification of correction : 1970 count not available.

decades, annual growth in the Fairbanks District (1.1 per cent and 1.9 per cent) was lower than or approximately the same as the rates for the Interior Region as a whole (2.9 per cent and 1.7 per cent), indicating no relative increase of urbanization of Native population within the region. Native population in Bethel grew at a declining rate (from 7.7 per cent between 1950 and 1960 to 6.7 per cent between 1960 and 1970), but at one that was substantially above the rates for the balance of the Southwest Region (2.5 per cent and 1.5 per cent). Within the Northwest Region, Nome's Native population, which had risen at an annual average rate of 5.6 per cent between 1950 and 1960, declined at an average rate of 0.5 per cent between 1960 and 1970. This pattern suggests that Nome served during the decade either as a staging area for further migration of Native residents of the region to other parts

TABLE 3.

Comparison April 1, 1960 Census of Native Population and Vital Statistics Projection 1950-1960

| | Total Alaska | Southwest | South-central | Southwest | Interior | North vest |
|---|---|---|---|---|---|---|
| April 1, 1960 Census | 43,081 | 9,242 | 5,514 | 14,314 | 4,638 | 9,373 |
| April 1, 1950 Census plus natural increase, 1950-59 | 46,349 | 10,827 | 5,470 | 14,051 | 5,610 | 10,511 |
| Difference (1960-1950 Census) | (3,268) | (1,585) | 44 | 263 | (972) | (1,138) |
| Average annual growth rates on basis of: | | | | | | |
| 1960 Census | 2.4 | 1.0 | 3.8 | 2.8 | 2.3 | 2.0 |
| Vital statistics projection | 3.1 | 3.1 | 3.7 | 2.6 | 4.3 | 3.2 |

NOTE: Parentheses = negative forms.

of Alaska, principally Anchorage, or a return to villages.[2] On the other hand, at Barrow — in the North Slope area of the Northwest Region — the concentration of Native population grew at an increasing rate, rising from an annual average of 2.7 per cent between 1950 and 1960 to 4.5 per cent between 1960 and 1970.

## COMPARISONS OF CENSUS INCREASES AND NATURAL INCREASES

In the 1950's and the 1960's, the cumulative net natural increase of the Native population, as presented in vital records collected by the state's Department of Health and Social Services (formerly called the Department of Health and Welfare), exceeded the net increase computed from successive census accounts. Between 1950 and 1960, vital records indicated a net increase in the Native population of 12,465, while the 1960 census enumeration indicated a total increase of only 9,197 (see Table 3). Because the vital records projections do not include the immediate effects of migration during the decade, it is to be expected that, where a region had experienced a net out-migration, they would exceed the estimates of actual resident population.

[2]See A.E. Hippler, "Some Observations on the Persistence of Alaska Native Village Populations," ISEGR Research Note A-1, September 1969.

In my 1964 analysis, I accordingly noted that the differences might in part reflect net out-migration from the state and from three of the regions and net in-migration to two regions, but I assumed that such movements could not be of the magnitude indicated by the census-vital statistics comparisons. I suggested, therefore, that the differences might be accounted for by variations in the reporting standards of the two agencies, errors, and, most important, changes in the racial classification procedures between the 1950 and the 1960 census. Prior to 1960, racial classification for the census was made on the basis of the enumerator's observations; in 1960, it was possible for the members of a household to classify themselves. However, racial classification for vital records has consistently been made by the attending doctor, U.S. Commissioner, or other official reporting the event. Thus, the disparities between census reports and vital records could be caused in part by people of Native or part-Native blood who lived in urban centers and no longer considered themselves as Native.[3]

The differences between the increases shown in the 1970 census and those reported as cumulative net natural increase reported for the decade of the 1960's were greater both in absolute and relative terms than in 1960. The 1970 census counted 6,453 fewer Natives than had been projected by the vital records. This amounts to 12.5 per cent of the 1970 count of Alaska's total Native population.

Native population by place as estimated by the Federal Field Committee for Development Planning in January 1967 and January 1969 provides a further basis of comparison. These were compilations of estimates made individually by BIA officials and teachers, public health personnel, and others having some direct knowledge of the places and the people. The results of these estimates projected to April 1970 differ from both the 1970 census enumeration and the projections made from the combined 1960 census and vital records data (see Table 4). They also indicate the probability of a significant undercount of Natives in the 1970 census.

As was the case in the 1960 comparison, assimilation and net out-migration undoubtedly would count for some of the "lost" Native population, but if these were the only explanations, the magnitude is too great not to have aroused comment, if not concern. For the state as a whole, an out-migration of 6,453 persons, or 12.5 per cent of the total Native population, could not have happened without notice.

In the case of the 1970 census, error appears as a more likely cause of part of these differences than in past census reports. The Anchorage Division, for example, was originally reported as having 124,542 persons. Under the pressure of protests from local government and community organizations, the Census Bureau investigated and discovered that there

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[3]G.W. Rogers, *op. cit.* (1964), p. 3. Since their inception, the broad objectives of education and social programs for Alaska's Native people have been eventual economic and cultural integration and assimilation. Prior to the rise in the mid and late 1960's of a strong statewide Native political movement, as represented in the Alaska Federation of Natives, regional organizations, and the land claims issue, it would not be unexpected for persons of fractional Native blood who had left their traditional villages to find it useful or desirable to "pass" as white or non-Native.

TABLE 1.

Comparison April 1, 1960 Census of Native Population and Other Estimates

| | Total Alaska | Southeast | Southcentral | Southwest | Interior | Northwest |
|---|---|---|---|---|---|---|
| April 1, 1970 Census[a] | 51,712 | 8,354 | 9,723 | 17,364 | 5,615 | 10,656 |
| April 1, 1960 Census plus Natural increase CY 1960 through 1969 | 58,165 | 11,974 | 8,308 | 19,282 | 6,316 | 12,285 |
| Federal Field Committee Estimate January 1969 projected to April 1, 1970[b] | 56,826 | 11,030 | 8,948 | 18,579 | 6,523 | 15,746 |
| April 1, 1970 Census less: | | | | | | |
| Projection 2 | (6,453) | (3,620) | 1,415 | (1,918) | (701) | (1,629) |
| Projection 3 | (5,114) | (2,676) | 775 | (1,215) | (908) | (1,090) |
| Average Annual Growth Rates: | | | | | | |
| April 1, 1970 Census | 1.8 | (0.9) | 5.8 | 1.9 | 1.8 | 1.3 |
| Projection 2 | 3.0 | 2.5 | 4.2 | 3.0 | 3.1 | 2.6 |
| Projection 3 | 2.7 | 1.8 | 4.9 | 2.6 | 3.4 | 2.3 |

NOTE: Parenthesis = negative forms.

[a]Partially estimated.

[b]Federal Field Committee for Development Planning in Alaska, *Estimates of Native Population, January 1969*, plus national increase for calendar year 1969 and one-fourth national increase for calendar year 1970.

were indeed areas within the division that had not even been canvassed. When these residences were picked up in a supplemental count, the final figure was revised to 126,333. Similarly, when residents of Tanana protested their original enumeration of 120 persons, investigation by the bureau raised the population to 406, a correction of 286 persons otherwise lost. The village of Napaskiak (188 persons) was missed entirely, and apparently only Federal Aviation Agency (FAA) employees and their families were counted at Northway. These are errors that have so far been authenticated and corrected. There may be others.

Anchorage has always had a considerable floating population — seasonally unemployed construction workers, new arrivals to Alaska without future plans or work, etc. More recently, as suggested in Table 2, Anchorage has increasingly become the destination of Alaska Natives who leave the rural areas. If the census enumerators were capable of such

large errors in covering persons with clearly identifiable "usual places of residence," it is entirely possible that they might commit even larger omissions in covering the street people in Anchorage.

Increasing census underenumeration has been a matter of national concern since the depression-induced migrations of the 1930's, and of World War II and after. For two years, the National Research Council has been examining questions of the political implications, economic consequences, and methodological difficulties of census underenumeration.[4] More important than the resulting study's finding that the country's population as underenumerated by an estimated 3 per cent in the 1950 and 1960 censuses were the much larger deficiencies in the counts of specific population subgroups (e.g., young black males). Two general probable causes of this differential undercounting were examined. These were the problems of techniques, particularly the inadequacy of the census image of social reality and the attitude of certain subgroups and individuals toward government and the census.

Underlying the entire census-taking process is the unstated assumption that:

> . . . most people have regular occupations, belong to churches or clubs, borrow money from banks, pay taxes, and vote; they can reasonably be expected to have a primary place of residence at a particular point in time, to put out mail boxes, to list themselves in a telephone directory, and to leave forwarding addresses when they move.

The study suggests that present enumeration methods do not adequately recognize the fact that "social structure is continually being renegotiated by people" and, therefore, the assumption that all people live in accordance with common patterns of social organization and behavior results in causing those who do not conform to become "invisible" to the census process. The other side of the coin is that many "uncounted persons prefer not to become 'socially visible' in a census," and that this preference may "attest to a profound estrangement from the values and everyday life experiences of the counted majority."

The Native population "lost" in the 1960 and 1970 census can thus be partially explained. The loss is due to a combination of actual, but uncounted, out-migration from the State of Alaska, counting and recounting errors, Natives "passing" as non-Natives where the situation permitted and there was a motivation to do so, and an increasing movement of Natives from established village residences, where they could be located and counted, to the floating populations in Anchorage, Fairbanks, Seattle, and elsewhere. What is not presently available is a measure of the degree to which each of these factors (or some we do not even know of) contributed to the undercount. This is worthy of further study. As the National Research Council study points out, this undercounting "may be viewed as a symptom of some social problem or of anomalous social circumstances," and it is critically important both to those who have become invisible and to the health of the society as a whole that "the missing individuals are found and their life circumstances are fully described." The meaning of this present comparison for Alaska Natives and for all Alaskans should be clear.

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[4]Quotes used in this portion are from a review of the report, *America's Uncounted People* (soon to be released) in *News Report*, National Academy of Sciences, Washington, D.C., Vol. XXI, No. 7, August - September, 1971.

## VITAL STATISTICS 1950-1970

In the years between 1950 and 1970, major demographic changes other than regional migrations were taking place in Alaska. Tables 5 through 9 (two of which present alternative regional units in conformity with those used in recent Alaska Department of Labor reports) analyze these changes through a summary of the resident birth and resident death statistics by major regions for calendar years 1950 through 1970. The annual population estimates from which rates were computed were arrived at by adding to the census year base the annual net natural increase and redistributing to each year as "adjustment for other factors" the annual average of regional differences between the 1960 and 1970 census enumerations and the census plus vital statistics projections.[5] Because of their official status, the census data undoubtedly will stand as the basis for "authoritative" demographic analysis in spite of the questions raised above. Population estimates for the intervening years between decinial census, therefore, must relate to the official benchmarks. What might be an "accurate" series of annual population estimates and vital statistics rates is beyond the scope of this effort and is probably unattainable in any case. However, the analysis presented does have the lesser virtue of at least being comparable to official census reports as the adjustment factor includes not only the true (but undisclosed) migration reflected in a comparison of census enumerations, but also the errors, omissions, and interpretive differences.

During the period of the 1950's, death rates generally declined in the Southwest, Northwest, and Interior regions from 20 or more per 1,000 persons to 10 or less. In the Southeast and Southcentral regions, the decline was somewhat less dramatic going from 12 or 10 to 10 or 9 deaths per 1,000 persons. Crude birth rates remained relatively constant at extremely high levels in all regions (about 50 per 1,000 persons in Northwest and Southcentral, 40 in Southeast and Southwest, and 60 in Interior). The varying rates of decline in crude death rates in each of the major regions of the state gave evidence of stabilizing during the 1960's, and high crude birth rates of about 50 per 1,000 population remained constant in all regions into the early 1960's. Some suggestion of decline in birth rates appeared in 1964 and 1965 in all regions, and by 1966 and 1967, a dramatic drop was recorded. For the remaining years of the decade, a clear downward trend was registered.

As was the case of the decline in death rates during the 1940's and 1950's, the decline in birth rates in the last half of the 1960's can be attributed to public programs which had this as their objective. The only surprise is that the programs appear to have had such immediate and dramatic results.[6]

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[5] In all but the Southcentral region, the annual allocation was made approximately (i.e., to the nearest integer) in proportion to the annual number of births with a year's lead or lag (depending upon whether the number of births increased or declined). The annual adjustment factor for the Southcentral region was computed in proportion to the sum of the deflation factors for all of the other regions on the assumption that Anchorage was the likely destination of out-migrants from these regions.

[6] In the 1964 and 1967 studies, *op. cit.*, for example, such effects were not anticipated until late in the 1970's.

## TABLE 5.

### Estimated Total Native Population and Vital Statistics, 1950-1970

### SOUTHEAST ALASKA

| | Calendar Year Vital Statistics | | | Adjustment For Other Factors | Estimated Population April 1 | Calendar Year Crude Vital Statistics Rates | | |
|---|---|---|---|---|---|---|---|---|
| | Resident Births | Resident Deaths | Natural Increase | | | Births | Deaths | Natural Increase |
| | | | | | | (per 1,000 persons) | | |
| 1950 | 343 | 93 | 250 | (129) | 7,929 | 43.3 | 11.7 | 31.5 |
| 1951 | 347 | 111 | 236 | (136) | 8,050 | 43.1 | 13.8 | 29.0 |
| 1952 | 348 | 94 | 254 | (154) | 8,150 | 42.7 | 11.5 | 31.2 |
| 1953 | 355 | 81 | 274 | (124) | 8,250 | 43.0 | 9.8 | 33.2 |
| 1954 | 370 | 70 | 300 | (150) | 8,400 | 44.1 | 8.3 | 35.8 |
| 1955 | 401 | 101 | 300 | (150) | 8,550 | 46.9 | 11.8 | 35.1 |
| 1956 | 408 | 80 | 328 | (178) | 8,700 | 46.9 | 9.2 | 37.7 |
| 1957 | 399 | 94 | 305 | (155) | 8,850 | 45.1 | 10.7 | 34.4 |
| 1958 | 404 | 87 | 317 | (217) | 9,000 | 44.9 | 9.7 | 35.2 |
| 1959 | 419 | 85 | 334 | (192) | 9,100 | 46.1 | 9.3 | 36.7 |
| 1960 | 417 | 98 | 319 | (261) | 9,242 | 45.1 | 10.6 | 34.5 |
| 1961 | 438 | 97 | 341 | (241) | 9,300 | 47.1 | 10.4 | 36.7 |
| 1962 | 426 | 93 | 333 | (433) | 9,400 | 45.3 | 9.9 | 35.4 |
| 1963 | 419 | 98 | 321 | (521) | 9,300 | 45.1 | 10.6 | 34.5 |
| 1964 | 361 | 88 | 273 | (373) | 9,100 | 39.7 | 9.7 | 30.0 |
| 1965 | 391 | 89 | 302 | (502) | 9,000 | 43.4 | 9.8 | 33.6 |
| 1966 | 330 | 88 | 242 | (542) | 8,800 | 37.5 | 10.0 | 27.5 |
| 1967 | 297 | 79 | 218 | (318) | 8,500 | 34.9 | 9.3 | 25.6 |
| 1968 | 294 | 92 | 202 | (302) | 8,400 | 35.0 | 11.0 | 24.0 |
| 1969 | 264 | 83 | 181 | (127) | 8,300 | 31.8 | 10.0 | 21.8 |
| 1970 | 311 | 76 | 235 | (189) | 8,354 | 37.2 | 9.1 | 28.1 |
| 1971 | na | na | na | na | 8,400 | | | |

na: Data not available.

SOURCE: Births and deaths adjusted to residence provided by Alaska Department of Health and Social Services, Statistical Services and Vital Records. Total population for 1950, 1960, and 1970 from U.S. Bureau of the Census.

## TABLE 6.

### Estimated Total Native Population and Vital Statistics, 1950-1970

### SOUTHCENTRAL ALASKA

| | Calendar Year Vital Statistics | | | Adjustment For Other Factors | Estimated Population April 1 | Calendar Year Crude Vital Statistics Rates | | |
|---|---|---|---|---|---|---|---|---|
| | Resident Births | Resident Deaths | Resident Increase | | | Births | Deaths | Natural Increase |
| | | | | | | (per 1,000 persons) | | |
| 1950 | 165 | 46 | 119 | (7) | 3,788 | 43.6 | 12.1 | 31.4 |
| 1951 | 164 | 61 | 103 | (3) | 3,900 | 42.0 | 15.6 | 26.3 |
| 1952 | 183 | 52 | 131 | 19 | 4,000 | 45.6 | 12.9 | 32.6 |
| 1953 | 179 | 40 | 139 | 11 | 4,150 | 43.1 | 9.6 | 33.5 |
| 1954 | 181 | 46 | 135 | 15 | 4,300 | 42.2 | 10.7 | 31.4 |
| 1955 | 216 | 30 | 186 | (36) | 4,450 | 48.7 | 6.8 | 41.9 |
| 1956 | 259 | 44 | 215 | 35 | 4,600 | 56.0 | 9.5 | 46.5 |
| 1957 | 238 | 42 | 196 | 4 | 4,850 | 49.1 | 8.7 | 40.5 |
| 1958 | 276 | 47 | 229 | 21 | 5,050 | 54.7 | 9.3 | 45.4 |
| 1959 | 268 | 39 | 229 | (15) | 5,300 | 50.8 | 7.4 | 43.4 |
| 1960 | 308 | 37 | 271 | 15 | 5,514 | 55.9 | 6.7 | 49.1 |
| 1961 | 310 | 53 | 257 | 43 | 5,800 | 53.4 | 9.1 | 44.3 |
| 1962 | 329 | 49 | 280 | 120 | 6,100 | 53.9 | 8.0 | 45.9 |
| 1963 | 366 | 64 | 302 | 198 | 6,500 | 56.3 | 9.8 | 46.5 |
| 1964* | 355 | 104* | 251 | 149 | 7,000 | 50.7 | 14.9 | 35.8 |
| 1965 | 357 | 75 | 282 | 218 | 7,400 | 48.2 | 10.1 | 38.1 |
| 1966 | 339 | 80 | 259 | 241 | 7,900 | 42.9 | 10.1 | 32.8 |
| 1967 | 345 | 54 | 291 | 209 | 8,400 | 41.1 | 6.4 | 34.6 |
| 1968 | 361 | 68 | 293 | 107 | 8,900 | 40.7 | 7.6 | 32.9 |
| 1969 | 393 | 85 | 308 | 115 | 9,300 | 42.3 | 9.1 | 33.1 |
| 1970 | 453 | 74 | 379 | 98 | 9,723 | 46.6 | 7.6 | 39.0 |
| 1971 | na | na | na | na | 10,200 | | | |

na: Data not available.

*High number of deaths due to Good Friday earthquake and aftermaths.

SOURCE: Births and deaths adjusted to place of residence provided by Alaska Department of Health and Social Services, Statistical Services and Vital Records. Total population for 1950, 1960, and 1970 from U.S. Bureau of the Census.

## TABLE 6-A.

### Estimated Total Native Population and Vital Statistics, 1950-1970

### SOUTHCENTRAL ALASKA (AMO '70's Basis)[a]

| | Calendar Year Vital Statistics | | | Adjustment For Other Factors | Estimated Population April 1 | Calendar Year Crude Vital Statistics Rates | | |
|---|---|---|---|---|---|---|---|---|
| | Resident Births | Resident Deaths | Natural Increase | | | Births | Deaths | Natural Increase |
| | | | | | | (per 1,000 persons) | | |
| 1950 | 216 | 58 | 158 | (3) | 4,695 | 46.0 | 12.4 | 33.6 |
| 1951 | 229 | 90 | 139 | 11 | 4,850 | 47.2 | 18.6 | 28.6 |
| 1952 | 236 | 75 | 161 | (11) | 5,000 | 47.2 | 15.0 | 32.2 |
| 1953 | 230 | 58 | 172 | (22) | 5,150 | 44.7 | 11.3 | 33.4 |
| 1954 | 257 | 70 | 187 | 13 | 5,300 | 48.5 | 13.2 | 35.3 |
| 1955 | 279 | 39 | 240 | (40) | 5,500 | 50.7 | 7.1 | 43.6 |
| 1956 | 317 | 67 | 250 | – | 5,700 | 55.6 | 11.8 | 43.8 |
| 1957 | 307 | 57 | 250 | – | 5,950 | 51.6 | 9.6 | 42.0 |
| 1958 | 348 | 55 | 293 | 7 | 6,200 | 56.1 | 8.9 | 47.2 |
| 1959 | 346 | 59 | 287 | (57) | 6,500 | 53.2 | 9.1 | 44.1 |
| 1960 | 383 | 56 | 327 | 43 | 6,730 | 56.9 | 8.3 | 48.6 |
| 1961 | 386 | 71 | 315 | 85 | 7,100 | 54.4 | 10.0 | 44.4 |
| 1962 | 434 | 64 | 370 | 130 | 7,500 | 57.8 | 8.5 | 49.3 |
| 1963 | 455 | 84 | 371 | 129 | 8,000 | 56.9 | 10.5 | 46.4 |
| 1964 | 445 | 123[b] | 322 | 178 | 8,500 | 52.4 | 14.5[b] | 37.9 |
| 1965 | 427 | 103 | 324 | 276 | 9,000 | 47.4 | 11.4 | 36.0 |
| 1966 | 417 | 110 | 307 | 293 | 9,600 | 43.4 | 11.5 | 31.9 |
| 1967 | 398 | 75 | 323 | 277 | 10,200 | 39.0 | 7.4 | 31.6 |
| 1968 | 423 | 91 | 332 | 168 | 10,800 | 39.1 | 8.4 | 30.7 |
| 1969 | 449 | 107 | 342 | 191 | 11,300 | 39.8 | 9.5 | 30.3 |
| 1970 | 498 | 87 | 411 | 156 | 11,833 | 42.1 | 7.4 | 34.7 |
| 1971 | na | na | na | na | 12,400 | | | |

[a]Includes Aleutian Islands District to comply with regional definition in Alaska Department of Labor, *Alaska's Manpower Outlook for the 1970's.*

[b]Due to 1964 earthquake.

## TABLE 7.

### Estimated Total Native Population and Components of Annual Change, 1950-1970

### SOUTHWEST ALASKA

| | Calendar Year Vital Statistics | | | Adjustment For Other Factors | Estimated Population April 1 | Calendar Year Crude Vital Statistics Rates | | |
|---|---|---|---|---|---|---|---|---|
| | Resident Births | Resident Deaths | Natural Increase | | | Births | Deaths | Natural Increase |
| | | | | | | (per 1,000 persons) | | |
| 1950 | 324 | 152 | 172 | 40 | 10,838 | 29.9 | 14.0 | 15.9 |
| 1951 | 430 | 243 | 187 | 13 | 11,050 | 39.0 | 22.0 | 16.9 |
| 1952 | 442 | 221 | 221 | 29 | 11,250 | 39.3 | 19.6 | 19.6 |
| 1953 | 449 | 191 | 258 | 42 | 11,500 | 39.1 | 16.6 | 22.4 |
| 1954 | 493 | 161 | 332 | (32) | 11,800 | 41.9 | 13.7 | 28.2 |
| 1955 | 450 | 125 | 325 | 25 | 12,100 | 37.1 | 10.3 | 26.8 |
| 1956 | 569 | 177 | 392 | 8 | 12,500 | 45.6 | 14.2 | 31.4 |
| 1957 | 541 | 156 | 385 | 15 | 12,900 | 41.9 | 12.1 | 29.8 |
| 1958 | 554 | 125 | 429 | 21 | 13,300 | 41.6 | 9.4 | 32.2 |
| 1959 | 644 | 132 | 512 | 52 | 13,750 | 46.8 | 9.6 | 37.2 |
| 1960 | 662 | 135 | 527 | 59 | 14,314 | 46.2 | 9.4 | 36.8 |
| 1961 | 702 | 155 | 547 | (47) | 14,900 | 47.1 | 10.4 | 36.7 |
| 1962 | 727 | 143 | 584 | (84) | 15,400 | 47.2 | 9.3 | 37.9 |
| 1963 | 717 | 144 | 573 | (173) | 15,900 | 45.1 | 9.1 | 36.0 |
| 1964 | 683 | 138 | 545 | (245) | 16,300 | 41.9 | 8.4 | 33.4 |
| 1965 | 675 | 179 | 496 | (396) | 16,600 | 40.7 | 10.8 | 29.9 |
| 1966 | 699 | 155 | 544 | (344) | 16,700 | 41.8 | 9.3 | 32.6 |
| 1967 | 559 | 134 | 425 | (325) | 16,900 | 33.1 | 8.0 | 25.1 |
| 1968 | 503 | 115 | 388 | (188) | 17,000 | 29.6 | 6.8 | 22.8 |
| 1969 | 446 | 107 | 339 | (175) | 17,200 | 25.9 | 6.2 | 19.7 |
| 1970 | 480 | 102 | 378 | (242) | 17,364 | 27.6 | 5.8 | 21.8 |
| 1971 | na | na | na | na | 17,500 | | | |

na: Data not available.

SOURCE: Births and deaths adjusted to place of residence provided by Alaska Department of Health and Social Services, Statistical Services and Vital Records. Total population for 1950, 1960, and 1970 from U.S. Bureau of the Census.

TABLE 7-A.

Estimated Total Native Population and Vital Statistics, 1950-1970

SOUTHWEST ALASKA (AMO '70's Basis)[a]

| | Calendar Year Vital Statistics | | | Adjustment For Other Factors | Estimated Population April 1 | Calendar Year Crude Vital Statistics Rates | | |
|---|---|---|---|---|---|---|---|---|
| | Resident Births | Resident Deaths | Resident Increase | | | Births | Deaths | Natural Increase |
| | | | | | | (per 1,000 persons) | | |
| 1950 | 273 | 140 | 133 | 36 | 9,931 | 27.5 | 14.1 | 13.4 |
| 1951 | 365 | 214 | 151 | 49 | 10,100 | 36.1 | 21.2 | 14.9 |
| 1952 | 389 | 198 | 191 | 9 | 10,300 | 37.8 | 19.2 | 18.6 |
| 1953 | 398 | 173 | 225 | 25 | 10,500 | 37.9 | 16.5 | 21.4 |
| 1954 | 423 | 137 | 286 | 64 | 10,750 | 39.3 | 12.7 | 26.6 |
| 1955 | 387 | 116 | 271 | 29 | 11,100 | 34.9 | 10.5 | 24.4 |
| 1956 | 511 | 154 | 357 | 43 | 11,400 | 44.8 | 13.5 | 31.3 |
| 1957 | 472 | 141 | 331 | 69 | 11,800 | 40.0 | 11.9 | 28.1 |
| 1958 | 482 | 117 | 365 | 35 | 12,200 | 39.5 | 9.6 | 29.9 |
| 1959 | 566 | 112 | 454 | 44 | 12,600 | 44.9 | 8.9 | 36.0 |
| 1960 | 587 | 116 | 471 | 31 | 13,098 | 44.8 | 8.9 | 35.9 |
| 1961 | 626 | 137 | 489 | (89) | 13,600 | 46.0 | 10.1 | 35.9 |
| 1962 | 623 | 128 | 495 | (195) | 14,000 | 44.5 | 9.1 | 35.4 |
| 1963 | 628 | 120 | 508 | (208) | 14,300 | 43.9 | 8.4 | 35.5 |
| 1964 | 593 | 119 | 474 | (374) | 14,600 | 40.6 | 8.2 | 32.4 |
| 1965 | 605 | 151 | 454 | (354) | 14,700 | 41.2 | 10.3 | 30.9 |
| 1966 | 621 | 125 | 496 | (396) | 14,800 | 41.9 | 8.4 | 33.5 |
| 1967 | 506 | 113 | 393 | (293) | 14,900 | 34.0 | 7.6 | 26.4 |
| 1968 | 442 | 92 | 350 | (250) | 15,000 | 29.4 | 6.1 | 23.3 |
| 1969 | 390 | 85 | 305 | (151) | 15,100 | 25.8 | 5.6 | 20.2 |
| 1970 | 435 | 89 | 346 | (200) | 15,254 | 28.5 | 5.8 | 22.7 |
| 1971 | na | na | na | na | 15,400 | | | |

na: Data not available.

[a]Excludes Aleutian Islands District to comply with regional definition in Alaska Department of Labor, *Alaska's Manpower Outlook for the 1970's.*

TABLE 8.

Estimated Total Native Population and Vital Statistics, 1950-1970

INTERIOR ALASKA

| | Calendar Year Vital Statistics | | | Adjustment For Other Factors | Estimated Population April 1 | Calendar Year Crude Vital Statistics Rates | | |
|---|---|---|---|---|---|---|---|---|
| | Resident Births | Resident Deaths | Natural Increase | | | Births | Deaths | Natural Increase |
| | | | | | | (per 1,000 persons) | | |
| 1950 | 186* | 72 | 114 | (80) | 3,666 | 50.7* | 19.6 | 31.1 |
| 1951 | 218 | 82 | 136 | (36) | 3,700 | 58.9 | 22.2 | 36.7 |
| 1952 | 247 | 60 | 187 | (87) | 3,800 | 65.0 | 15.8 | 49.2 |
| 1953 | 229 | 46 | 183 | (83) | 3,900 | 58.7 | 11.8 | 46.9 |
| 1954 | 237 | 38 | 199 | (99) | 4,000 | 59.3 | 9.5 | 49.9 |
| 1955 | 237 | 36 | 201 | (101) | 4,100 | 57.8 | 8.8 | 49.0 |
| 1956 | 249 | 36 | 213 | (113) | 4,200 | 59.3 | 8.6 | 50.7 |
| 1957 | 235 | 49 | 186 | (86) | 4,300 | 54.7 | 11.4 | 43.3 |
| 1958 | 272 | 43 | 229 | (129) | 4,400 | 61.8 | 9.8 | 52.0 |
| 1959 | 229 | 53 | 176 | (38) | 4,500 | 50.9 | 11.8 | 39.1 |
| 1960 | 223 | 50 | 173 | (111) | 4,638 | 48.1 | 10.8 | 37.3 |
| 1961 | 239 | 39 | 200 | (100) | 4,700 | 50.9 | 8.3 | 42.6 |
| 1962 | 249 | 46 | 203 | (103) | 4,800 | 51.9 | 9.6 | 42.3 |
| 1963 | 239 | 40 | 199 | (99) | 4,900 | 48.8 | 8.2 | 40.6 |
| 1964 | 236 | 48 | 188 | (88) | 5,000 | 47.2 | 9.6 | 37.6 |
| 1965 | 227 | 43 | 184 | (84) | 5,100 | 44.5 | 8.4 | 36.1 |
| 1966 | 200 | 61 | 139 | (39) | 5,200 | 38.5 | 11.7 | 26.7 |
| 1967 | 176 | 53 | 123 | (23) | 5,300 | 33.2 | 10.0 | 23.2 |
| 1968 | 175 | 41 | 134 | (34) | 5,400 | 32.4 | 7.6 | 24.8 |
| 1969 | 176 | 41 | 135 | (20) | 5,500 | 32.0 | 7.4 | 24.5 |
| 1970 | 184 | 51 | 133 | (48) | 5,615 | 32.7 | 9.0 | 23.7 |
| 1971 | na | na | na | na | 5,700 | | | |

na: Data not available.

*1950 births probably under-reported.

SOURCE: Births and deaths adjusted to place of residence from Alaska Department of Health and Social Services and Vital Records. Total population for 1950, 1960, and 1970 from the U.S. Bureau of the Census.

## TABLE 9.

### Estimated Total Native Population and Vital Statistics, 1950-1970

### NORTHWEST ALASKA

| | Calendar Year Vital Statistics | | | Adjustment For Other Factors | Estimated Population April 1 | Calendar Year Crude Vital Statistics Rates | | |
|---|---|---|---|---|---|---|---|---|
| | Resident Births | Resident Deaths | Resident Increase | | | Births | Deaths | Natural Increase |
| 1950 | 358 | 211 | 147 | (60) | 7,663 | 46.7 | 27.5 | 19.2 |
| 1951 | 375 | 126 | 249 | (99) | 7,750 | 48.4 | 16.3 | 32.1 |
| 1952 | 371 | 117 | 254 | (104) | 7,900 | 47.0 | 14.8 | 32.2 |
| 1953 | 370 | 139 | 231 | (81) | 8,050 | 45.9 | 17.3 | 28.7 |
| 1954 | 385 | 108 | 277 | (77) | 8,200 | 47.0 | 13.2 | 33.8 |
| 1955 | 425 | 87 | 338 | (138) | 8,400 | 50.8 | 10.4 | 40.4 |
| 1956 | 423 | 109 | 314 | (114) | 8,300 | 49.2 | 12.7 | 36.5 |
| 1957 | 433 | 98 | 335 | (135) | 8,300 | 49.2 | 11.2 | 38.1 |
| 1958 | 447 | 92 | 355 | (155) | 9,000 | 49.7 | 10.3 | 39.5 |
| 1959 | 455 | 107 | 348 | (175) | 9,200 | 49.5 | 11.7 | 37.8 |
| 1960 | 449 | 84 | 355 | (228) | 9,373 | 47.9 | 9.0 | 37.9 |
| 1961 | 422 | 88 | 334 | (134) | 9,500 | 44.4 | 9.3 | 35.1 |
| 1962 | 439 | 98 | 341 | (141) | 9,700 | 45.3 | 10.1 | 35.2 |
| 1963 | 411 | 95 | 316 | (216) | 9,900 | 41.5 | 9.6 | 31.9 |
| 1964 | 413 | 95 | 318 | (218) | 10,000 | 41.3 | 9.5 | 31.8 |
| 1965 | 434 | 63 | 371 | (271) | 10,100 | 43.0 | 6.2 | 36.8 |
| 1966 | 375 | 94 | 281 | (181) | 10,200 | 36.8 | 9.2 | 27.6 |
| 1967 | 325 | 85 | 240 | (140) | 10,300 | 31.6 | 8.3 | 23.3 |
| 1968 | 254 | 75 | 179 | (79) | 10,400 | 24.4 | 7.2 | 17.2 |
| 1969 | 240 | 63 | 177 | (21) | 10,500 | 22.9 | 6.0 | 16.9 |
| 1970 | 290 | 76 | 214 | (70) | 10,656 | 27.2 | 7.1 | 20.1 |
| 1971 | na | na | na | na | 10,800 | | | |

na: Data not available.

SOURCE: Births and deaths adjusted to residence provided by Alaska Department of Health and Social Services, Statistical Services and Vital Records. Total population for 1950, 1960, and 1970 from U.S. Bureau of the Census.

## NATIVE POPULATION PROJECTIONS 1970-1985

In Table 10, Native population by regions has been projected on the basis of two extreme sets of assumptions and a short-hand methodology that probably define the limits within which actual change will take place. The first set is based on the assumption that there will be no out-migration of Native population from the state nor any migration between regions of the state. Net natural increase is assumed to be the only cause of change. Regional rates of annual net natural increase after 1971 are assumed to progressively decline from the annual average for the last five years of actual vital statistics in each region by 0.2 per cent for each five year period until a rate of 2.0 is reached.

**TABLE 10.**

**Native Population Projections by Regions—1970-1985**

| Year | Total Alaska | Southeast | Southcentral | Southwest | Interior | Northwest |
|---|---|---|---|---|---|---|
| | Native Population Projection (thousands of persons) — No Migration[a] | | | | | |
| 1970 | 51.7 | 8.4 | 9.7 | 17.4 | 5.6 | 10.7 |
| 1971 | 52.6 | 8.4 | 10.2 | 17.5 | 5.7 | 10.8 |
| 1975 | 58.6 | 9.5 | 11.4 | 19.5 | 6.3 | 11.9 |
| 1980 | 65.3 | 10.6 | 13.0 | 21.5 | 7.1 | 13.1 |
| 1985 | 72.3 | 11.7 | 14.6 | 23.7 | 7.8 | 14.5 |
| | Native Population Projection (thousands of persons) — On Non-Native Civilian Distribution[b] | | | | | |
| 1970 | 51.7 | 7.9 | 32.2 | 1.6 | 9.6 | 0.4 |
| 1971 | 52.6 | 8.0 | 32.8 | 1.6 | 9.8 | 0.4 |
| 1975 | 58.6 | 8.7 | 34.4 | 2.0 | 11.8 | 1.7 |
| 1980 | 65.3 | 10.3 | 37.5 | 3.4 | 12.1 | 2.0 |
| 1985 | 72.3 | 14.5 | 41.8 | 3.0 | 11.6 | 1.4 |

[a]Population 1975 through 2000 on assumption that average annual rate of net national increase for period 1965-69 progressively declines in each region 0.2 per cent per five-year period until annual rate of 2 per cent.

[b]Total Alaska population for each year allocation to region as follows: 1970 and 1971, same relative distribution as non-Native civilian population; 1975 through 1985, same relative distribution as civilian workforce projections in Alaska Department of Labor, *Alaska Manpower Outlook—1970's*, reports, minor up-dating on projection to 1985 by G.W. Rogers.

The second set of projections is made on the assumption that the total Native population within the entire state will be the same as in the first set, but regional allocations will be in proportion to the regional distribution of recent projections of civilian workforce.[7] Thereby, the projections assume that statewide increase in Native population will be in response to a progressively declining rate of net natural increase, but that the resulting population will move in response to economic imperatives (i.e., job opportunities). The procedure abstracts completely from such hindrances to mobility as lack of education and training, cultural restraints, etc.

Both sets of projections are extreme and, in their absolute nature, unrealistic. Taken together, however, they do set probable limits within which actual change will take place. They serve a further purpose in indicating the degree to which actual change will take place. must be increased if Natives are to participate as fully in general economic development as other Alaskans. On this basis, for example, the Southwest and Northwest regions appear as areas of increasing population surplus, while the Southcentral Region is one of high population deficit. This suggests not only that the inter-regional movements indicated in the decade of the 1960's will continue and possibly accelerate, but that public programs should be designed to promote such mobility.

The base for these future estimates is the 1970 census enumeration. The discussion above has stressed the high probability of error and undercounting in the official reports. This would be reflected throughout Table 10. What is projected, in other words, is the census version of "Alaska Native Population." Enrollment under Native land claim settlements in the near future should provide new and more accurate bases for further analysis and projection.

Because of the sudden downturn in birth rates in all regions in the mid-1960's, the population-employment imbalance in the future does not appear to be as severe as predicted in my projections made in 1964 and 1967. In the earlier projections, it had been assumed that these low birth rates would not be approached for another decade or so. Because changes in these rates can have such profound effects, it is essential that studies such as this be made on an annual basis.

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[7] In this case, my up-dating of projections made in Alaska Department of Labor's *Alaska Manpower Outlook in the 1970's.*